



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,226	09/29/2003	Tony Romeo	14233.10USU1	1700
23552	7590	09/21/2005		EXAMINER
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			SINGH, ANOOP KUMAR	
			ART UNIT	PAPER NUMBER
			1632	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/675,226	ROMEO ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Anoop Singh	1632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-45 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) \_\_\_\_ is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) 1-45 are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____ .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: ____ .

## DETAILED ACTION

1. Claims 1-45 are pending

### *Election/Restrictions*

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-3 and 37-39, drawn to method of using polynucleotide sequence encoding at least 200 amino acids of Seq ID 1 (ycdS) in a preparation of medicament useful in modulating polysaccharide adhesion synthesis, classified in class 514, subclass 44.
  - II. Claims 4-6, 40-42, drawn to method of using polynucleotide sequence encoding at least 200 amino acids of Seq ID 2 (ycdR) in a preparation of medicament useful in modulating polysaccharide adhesion synthesis, classified in class 514, subclass 44.
  - III. Claims 7-9 and 43-45, drawn to method of using polynucleotide sequence encoding at least 200 amino acids of Seq ID 3 (ycdQ) in a preparation of medicament useful in modulating polysaccharide adhesion synthesis, classified in class 514, subclass 44.
  - IV. Claims 10-11, drawn to method of using polypeptide sequence encoding at least 200 amino acids of Seq ID 1 (ycdS) in modulating polysaccharide adhesion synthesis by biofilm-producing bacteria, classified in class 514, subclass 2.
  - V. Claims 10 and 12, drawn to method of using polypeptide sequence encoding at least 200 amino acids of Seq ID 2 (ycdR) in modulating polysaccharide adhesion synthesis by biofilm-producing bacteria, classified in class 514, subclass 2.
  - VI. Claims 10 and 13, drawn to method of using polypeptide sequence encoding at least 200 amino acids of Seq ID 3 (ycdQ) in modulating polysaccharide adhesion synthesis by biofilm-producing bacteria, classified in class 514, subclass 2.
  - VII. Claims 14-15, 18-19, 27-31 and 33-35, drawn to method of identifying inhibitors of ycdQ of the ycdSRQP operon, classified in class 435, subclass 375.

VIII. Claims 14, 16,18, 20-25 and 27-31, drawn to method of identifying inhibitors of ycdR of the ycdSRQP operon, classified in class 435, subclass 375.

IX. Claims 14, 17-18, 26-32 and 36, drawn to method of identifying inhibitors of ycdS of the ycdSRQP operon, classified in class 435, subclass 375.

3. The inventions of groups I-III patentably distinct, each from other because they are drawn to methods that use material compositions that have distinct structure, function and utility. For example, the method of groups I-III require distinct polynucleotide sequence and require different searches as each sequence has a distinct structure and encodes different protein. Thus, searching for compositions used in treatment method of groups I- III will not be coextensive in the patent and non-patent literature.

The inventions of groups IV-VI are patentably distinct each from other because they are drawn to methods that use material compositions that have distinct structure, function and utility. The invention of method groups IV-VI require distinct amino acid sequence and require different searches as each sequence has a distinct structure. Therefore, searching for distinct compositions in a single patent application would constitute an undue burden on the examiner because of non-coextensive nature of these searches.

The inventions of groups I-III and IV-VI are patentably distinct each from other because they are drawn to methods that use material compositions that have distinct structure, function and utility. For example, the method of groups I-III are drawn to nucleic acid, which have distinct physical and chemical structure, compared to invention of groups IV-VI that require a protein. Additionally, the utilities of a nucleic acid are distinct and different from those of a protein. Thus, searching for compositions used in treatment method of group I-III will not be coextensive with compositions of method groups IV-VI in the patent and non-patent literature.

The inventions of groups VII-IX are patentably distinct, each from other because they are drawn to methods that have distinct steps, mode of action, require separate composition for practice and produce different results. For example, the inhibitors of method group IV require

modulating inner membrane of *E.Coli*. In contrast, inhibitor of method group V requires modulating polysaccharide deacetylase, which is different compare to inhibitor of method group VI that requires modulating outer membrane protein of *E.Coli*. Thus, method of identifying inhibitors of ycdQ or ycdR will not be coextensive with ycdS.

The inventions of groups I-III, IV-VI and VII-IX are distinct each from other because they are drawn to methods that have distinct steps, separate composition for practice and produce different product or results. For example, steps of a treatment method involving polynucleotide in a medicament as claimed in inventions I-III cannot be used in treatment method of groups IV-VI involving a polypeptide modulating polysaccharide adhesion synthesis or steps of a drug screening method of groups VII-IX. Therefore, the inventions of groups I-III, IV-VI and VII-IX are patentably distinct each from the other and will require separate and non-coextensive searches in the patent and non-patent literature.

Therefore, the inventions of groups I-IX are patentably distinct each from other and will require separate and non-coextensive searches in the patent and non-patent literature.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anoop Singh whose telephone number is (571) 272-3306. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached on (571) 272- 0735. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1632

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



RAM R. SHUKLA, PH.D.  
SUPERVISORY PATENT EXAMINER

Anoop Singh  
Examiner, AU 1632